

### **REMARKS**

This Amendment is filed in response to the Office Action mailed on November 27, 2007. All objections and rejections are respectfully traversed.

Claims 1-49 are currently pending.

Claims 50-55 are currently added.

### **Request for Interview**

The Applicant respectfully requests a telephonic interview with the Examiner after the Examiner has had an opportunity to consider this Amendment, but before the issuance of the next Office Action. The Applicant may be reached at 617-951-3067.

### **Claim Rejections – 35 USC § 103**

At paragraphs 4-5 of the Office Action, claims 1-4, 6-36, and 38-49 were rejected under 35 U.S.C. §103 as being unpatentable over Blumenau et al., US Patent 6,421,711, hereinafter Blumenau, in view of “A Guide to Understanding Veritas Volume Replicator,” hereinafter VVR.

The present invention, as set forth in representative claim 1, comprises in part:

1. A system configured to simplify management of a clustered storage system having a plurality of failover modes, the system comprising:

*a user interface system that defines a plurality of failover modes, wherein each failover mode automatically configures one or more ports on a selected storage system or a partner storage system in response to a failover condition; and*

*a command set implemented by the user interface system and including a command for a user to set a cluster mode where the cluster mode includes at least one of the plurality of failover modes.*

By way of background, Blumenau discloses a storage controller with at least one physical port and a plurality of virtual ports. A virtual switch routes storage requests from the physical port to the virtual ports. The storage controller includes a graphical user interface (GUI) that includes a grid of logical volumes to storage adapter ports. Additionally, at each intersection on the grid, the target/LUNs assigned to provide the administrator with a view of the mappings of LUNs to logical storage volumes and storage adapters. Furthermore, an administrator can use “mount” and “unmount” commands for mounting and unmounting storage volumes to storage ports.

VVR discloses a replication system for a cluster system, where the primary storage system and the secondary storage system are located in two separate geographic areas. Both the primary storage system and the secondary storage system are made up of a two node cluster site. Data is replicated on the secondary storage system using synchronous or asynchronous replication modes. Upon a partial failure of a primary storage system, the second node in the cluster system takes over as the primary storage system. Upon a full failure of the primary storage system, the secondary storage system takes over. If a power outage occurs at the primary storage system, then the secondary storage system can take over the primary storage system.

Applicant respectfully urges that Blumenau and VVR, taken alone or in combination do not teach or suggest Applicant’s claimed novel *a user interface system that de-*

*defines a plurality of failover modes, wherein each failover mode automatically configures one or more ports on a selected storage system or a partner storage system in response to a failover condition and a command set implemented by the user interface system and including a command for a user to set a cluster mode where the cluster mode includes at least one of the plurality of failover modes.* In further detail, in Applicant's claimed invention, a user interface is used to simplify management of a clustered storage system. The user interface defines a plurality of failover modes for operating the cluster in cluster mode. The command set permits the administrator to set the cluster failover mode as STANDBY, PARTNER, DUAL\_FABRIC or MIXED. "In STANDBY mode, the storage appliances utilize standby ports and a conventional failover mechanism. In the PARTNER mode, the appliances utilize the partner ports for data access proxying. In the DUAL\_FABRIC mode, which is typically set when the storage appliance has only one physical port, the storage appliance utilizes virtual ports to emulate additional active ports for clients. If the MIXED mode is set for the cluster, both the standby and partner ports are utilized." (Specification, page 6, lines 16-20). In contrast, Blumenau discloses a graphical user interface for organizing storage volumes and storage ports. Specifically, Blumenau includes a command line for mounting (or unmounting) volumes with a particular storage port. There is no disclosure in Blumenau of *a plurality of failure modes* or of *a command for a user to set a cluster mode where the cluster mode includes at least one of the plurality of failover modes*. Furthermore, VVR does not teach or suggest *command for a user to set a cluster mode where the cluster mode includes at least one of the plurality of failover modes*. VVR teaches that the type of

failover is based on the type of failure of the primary storage system. Specifically, VVR teaches that a second node within the primary storage system takes over when a partial failure occurs to the primary storage system and the secondary storage system takes over when a total failure occurs at the primary storage system. There is no teaching or suggestion in VVR of a user able to select what failure mode is used by the cluster in VVR. Applicant's invention allows a user to enter a command for a specific type of failure mode to be used by the cluster.

Accordingly, Applicant respectfully urges that Blumenau and VVR, taken alone or in combination, are legally insufficient to make obvious the presently claimed invention under 35 U.S.C. § 103 because of the absence of the Applicant's claimed novel *a user interface system that defines a plurality of failover modes, wherein each failover mode automatically configures one or more ports on a selected storage system or a partner storage system in response to a failover condition and a command set implemented by the user interface system and including a command for a user to set a cluster mode where the cluster mode includes at least one of the plurality of failover modes.*

At paragraph 6 of the Office Action, claims 5, 23, and 37 were rejected under 35 U.S.C. §103 as being unpatentable over Blumenau, in view of Clark, "IP SANs: A Guide to iSCSI, iFCP, and FCIP Protocols for Storage Area Networks" Published Nov. 26, 2001, hereinafter Clark.

Applicant respectfully notes that claims 5, 23, and 37 are dependent claims that depend from independent claims believed to be in condition for allowance. Accordingly, claims 5, 23, and 37 are believed to be in condition for allowance.

All independent claims are believed to be in condition for allowance.

All dependent claims are dependent from independent claims which are believed to be in condition for allowance. Accordingly, all dependent claims are believed to be in condition for allowance.

Favorable action is respectfully solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

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